

Work Order ID 87097

July-10-12 3:13:38 PM

87097

Page 1

Item ID: D3901-5

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Bar

Start Date: 7/09/12 Start Qty: 4.00 ***4***

Cust Item ID:

Required Date: 8/03/12 Req'd Qty: 4.00 ***4***

Customer:

Reference:

Run Start ***NR1***

Approvals: Process Plan: Date: 1207-4 Tooling: Date:

Stop ***NR2***

QC: Date: SPC (Y/N): Date:

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr | Revision Nbr | | | | | | | | |
| D3901 | C | | | | | | | | |

100

0.00

PO 12/08/13

100

Cold Saw

Memo

0.00

Hyd Mech

Cut blanks at 80.25"

4

Ø

110

0.00

110

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

1-Mill as per folio FB090 & dwg D3901,

FOLIO REV: E

DWG REV: E

2-Deburr as required

FK - 12/08/14

4

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Work Order ID 87097

87097

Page 2

July-10-12 3:13:38 PM

Item ID: D3901-5 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Bar
Start Date: 7/09/12 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 8/03/12 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|----------------------|---------|--------------|--------------|---------------|---------------|------------------|----------------|
| 120 *120* QC Quality Control | QC2- Inspect parts off machine FAI/FAIB Memo ***EXTRA MATERIAL WILL BE CUT ON ASSEMBLY*** | 0.00 0.00 | | F.K 12/08/14 | | 4 | | | |
| 130 *130* QC Quality Control | QC8- Inspect parts - second check Memo ***EXTRA MATERIAL WILL BE CUT ON ASSEMBLY*** | 0.00 0.00 | | SL 12-08-15 | | | | | |
| 140 *140* Packaging Packaging | Identify as per dwg & Stock Location: <i>W/A</i> Memo | 0.00 0.00 | | | | ④ | | 12-8-15 | |

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NOTE: Date & initial all entries

Work Order ID 87097

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Page 3

July-10-12 3:13:38 PM

Item ID: D3901-5 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bar
 Start Date: 7/09/12 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 8/03/12 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 150 | QC21- Final Inspection - Work Order Release | 0.00 | | | | | | | |
| *150* | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

MLJ 12/08/12

112-08-44

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

July-10-12 3:13:38 PM

Page 1

Work Order ID: 87097

Parent Item: D3901-5

Parent Item Name: Bar

Start Date: 7/09/12

Required Date: 8/03/12

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP RevA: New issue DD verified by:EC
verified by:JLM

IPP RevB: Now on cnc JFS 12/02/13

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M304B0.250x0.500 304 BAR .250 x .500 | | Purchased | No | | | 100 | f | 566.4540 | 6.648 | 27.991579 | | 8/12/08/13 | |

Location

Loc Qty

Loc Code

MAT050

566.454

121216

142.08

121547

63.904

→ 122008

360.47

67 28.0

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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NOTE: Date & initial all entries

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|-----------------------|---------------------|--------------|---------|
| DART AEROSPACE LTD | | Work Order: | 87097 |
| Description: Bar | | Part Number: | D3901-5 |
| Inspection Dwg: D3901 | Rev: B C | Page 1 of 1 | |

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|-------------------------|-----------|------------------|--------|--------|----------------------|----------|
| 0.50 | +/-0.030 | .490 | ✓ | | FK-04 | Vern. |
| 0.20 0.25" | +/-0.030 | .25 | ✓ | | " | " |
| 0.080 0.130" | +/-0.010 | .136 | ✓ | | " | " |
| 1.50 | +/-0.030 | 1.50 | ✓ | | " | " |
| 4.02 4.00" | +/-0.030 | 4.00 | ✓ | | " | " |
| 26.00 | +/-0.030 | 26.00 | ✓ | | FK-05 | Tape |
| 45.62 | +/-0.030 | 45.62 | ✓ | | " | " |
| 51.12 | +/-0.030 | 51.12 | ✓ | | " | " |
| 61.12 | +/-0.030 | 61.12 | ✓ | | " | " |
| 69.62 | +/-0.030 | 69.62 | ✓ | | " | " |
| 74.29 74.27" | +/-0.030 | 74.27 | ✓ | | " | " |
| 79.72 79.77" | +/-0.030 | 79.77 | ✓ | | " | " |
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|-------------------|-----------------------|---------------------|-----|
| Measured by: F.K. | Audited by: <u> </u> | Prototype Approval: | N/A |
| Date: 12/08/14 | Date: 12-08-15 | Date: | N/A |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|-----------|------------|-----------|
| A | 09.09.15 | New Issue | KJ | <u> </u> |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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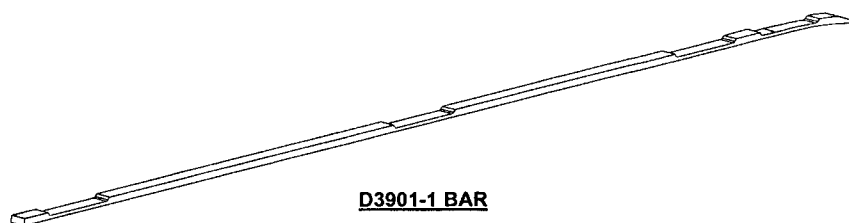
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

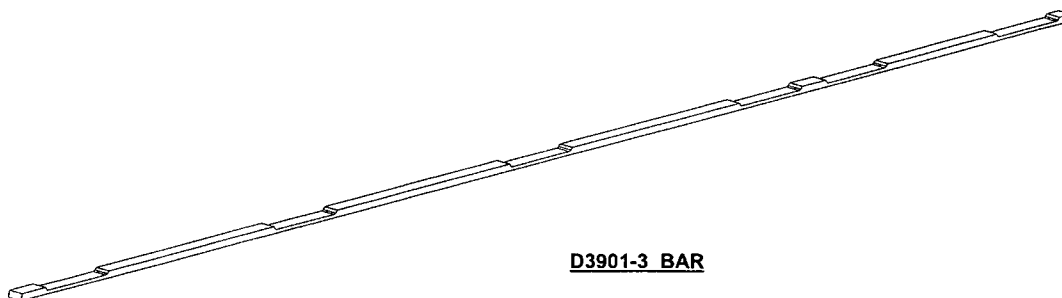
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NOTE: Date & initial all entries

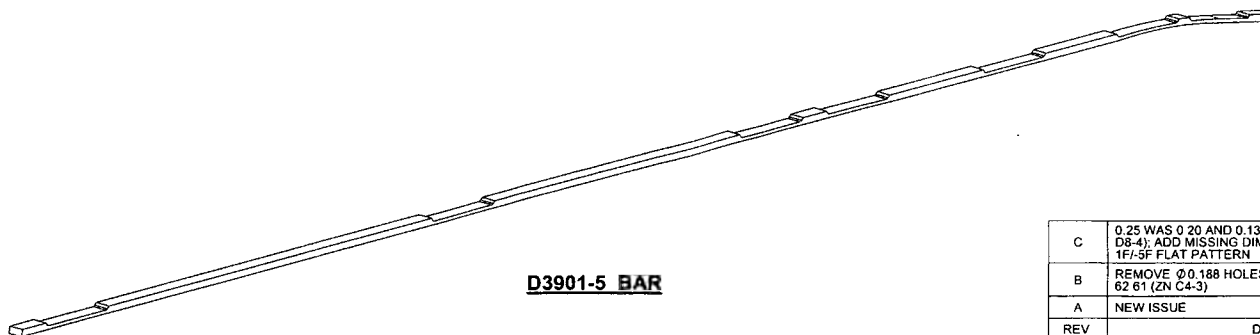
8-1097
R/12-07-11



D3901-1 BAR



D3901-3 BAR



D3901-5 BAR

RELEASED
2012-06-27

| C | 0.25 WAS 0.20 AND 0.130 WAS 0.080 (ZN B2-2, B1-3, D8-4); ADD MISSING DIMENSIONS (ZN C5-3); ADD D3901-1F-5F FLAT PATTERN | RF | 12.01.24 |
|------------|---|---|--------------|
| B | REMOVE Ø0.188 HOLES FROM D3901-1F-3F-5; 62 12 WAS 62 61 (ZN C4-3) | RF | 09.06.30 |
| A | NEW ISSUE | RF | 09.03.30 |
| REV | DESCRIPTION | BY | DATE |
| DESIGN | RF | DART AEROSPACE USA, INC. KENT, WA | |
| DRAWN | RF | | |
| CHECKED | RF | DRAWING NO. | REV. C |
| MFG. APPR. | RF | D3901 | SHEET 1 OF 4 |
| APPROVED | RF | TITLE | SCALE |
| DE APPR. | RF | BAR | NTS |
| DATE | 12.01.24 | <small>COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small> | |

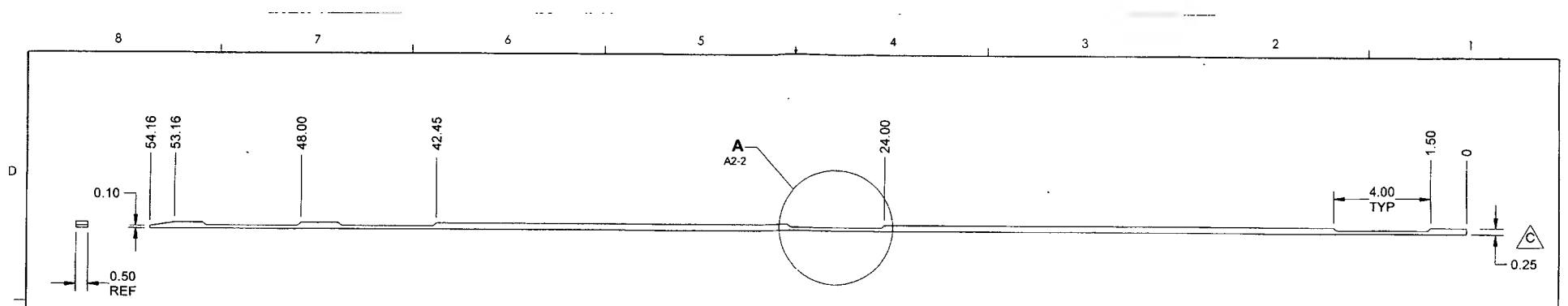
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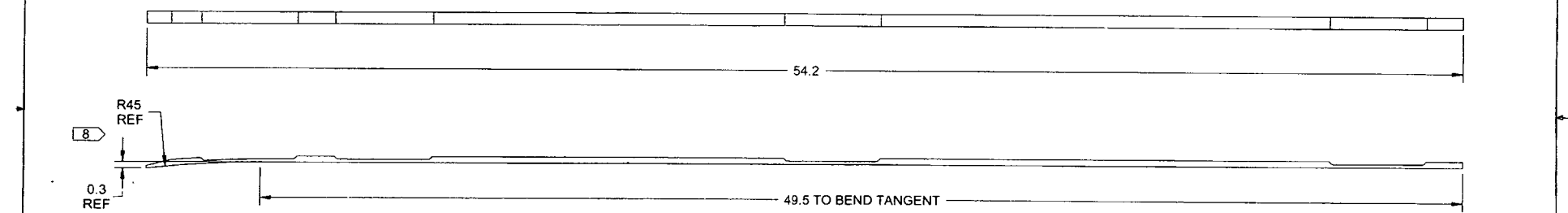
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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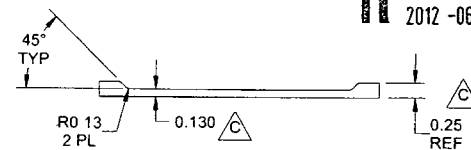
NOTE: Date & initial all entries



D3901-1F BAR FLAT PATTERN



D3901-1 BAR
(MAKE FROM D3901-1F)



DETAIL A D4-2
TYP. SCALE 2X B4-3
D2-4

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL BAR, 0.50 THICK (REF. DART SPEC. M304B)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.68 lbs
- 8) FORM TO FIT WEARPLATE

87097

| | | | |
|------------|--------------------|---|--------------|
| DESIGN | RF | DART AEROSPACE USA, INC. KENT, WA | |
| DRAWN | RF | | |
| CHECKED | <i>[Signature]</i> | DRAWING NO. | REV. C |
| MFG. APPR. | <i>[Signature]</i> | D3901 | SHEET 2 OF 4 |
| APPROVED | <i>[Signature]</i> | TITLE | SCALE |
| DE APPR. | <i>[Signature]</i> | BAR | NTS |
| DATE | 12.01.24 | <small>COPYRIGHT © 2008 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR DISSEMINATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small> | |

RELEASED
2012-06-27

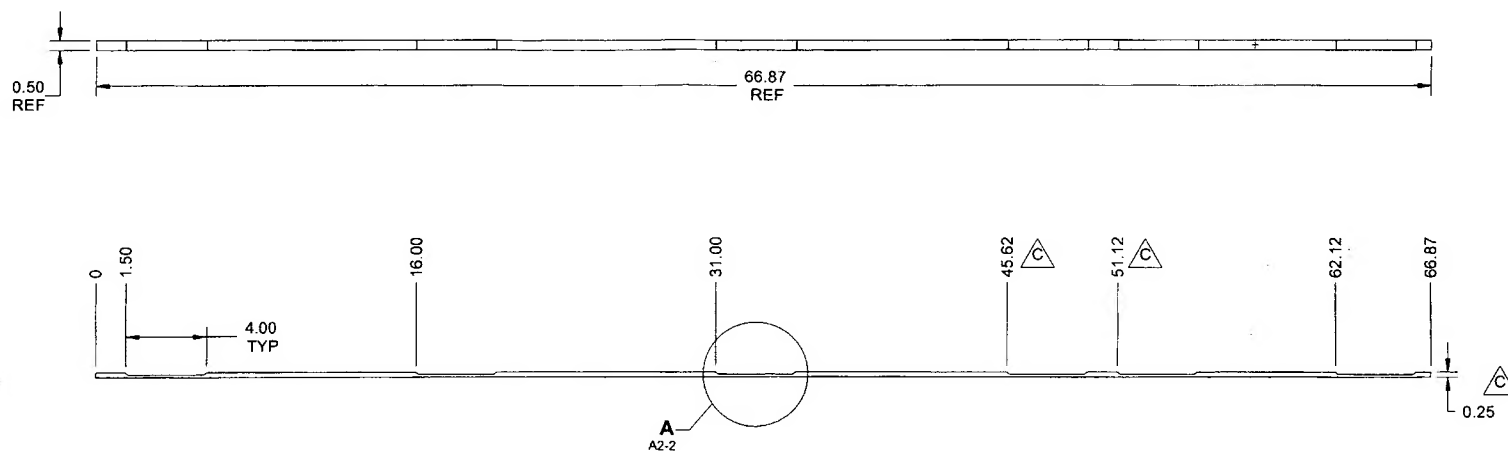
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NOTE: Date & initial all entries



D3901-3 BAR

57097

RELEASED
2012-06-27

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL BAR, 0.50 THICK (REF. DART SPEC. M304B)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.01 lbs

| | | | |
|------------|----------|---|--------|
| DESIGN | RF | DART AEROSPACE USA, INC. | |
| DRAWN | RF | KENT, WA | |
| CHECKED | RF | DRAWING NO. D3901 | REV. C |
| MFG. APPR. | RF | SHEET 3 OF 4 | |
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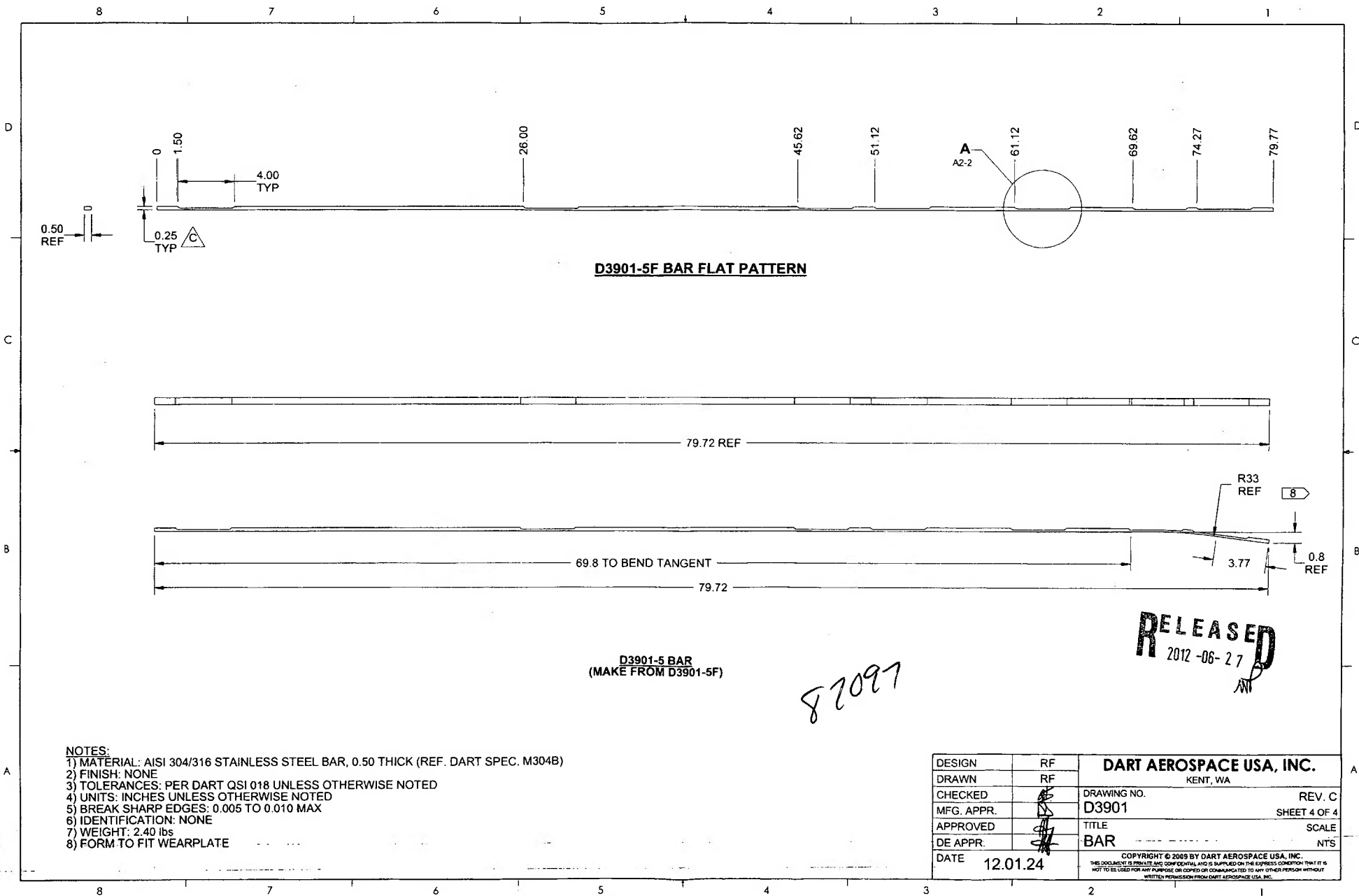
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NOTE: Date & initial all entries



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- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.40 lbs
- 8) FORM TO FIT WEARPLATE

| | | | |
|------------|----------|---|--------------|
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| DRAWN | RF | KENT, WA | |
| CHECKED | RF | DRAWING NO. | REV. C |
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